1. A spread spectrum communication system including a transmitter and receiver for performing spread spectrum communications based on a direct sequence spreading scheme, the transmitter comprising:

a complex spread portion for multiplying an I-phase component signal and a Q-phase component signal of the transmission signal by one type of complex number sequence which will not cause any phase transition of a signal on the I-Q plane in the direction toward the origin;

a multiplier for multiplying the signals output from the complex spreading portion by a pseudo-random sequence which is generated at a speed exceeding the symbol rate;

a roll-off filter for waveform shaping; and

a carrier modulator for performing carrier modulation of the signals having undergone waveform shaping,

the receiver comprising:

a carrier demodulator for performing carrier demodulation of the received signal;

a multiplier for multiplying the two types of signals output from the carrier demodulator by the pseudo-random sequence generated at the same speed as above;

a complex despreading portion for performing despreading by multiplying each signal by the complex number sequence; and

a phase-correcting portion for performing phase-correction so as to extract the I-phase and Q-phase components.

2. The spectrum spread communication system according to Claim 1, wherein the complex spreading portion includes:

a multiplier for multiplying the I-phase component signal and Q-phase component signal of the transmission signal by the complex number sequence, and

an adder for performing addition of the I-phase component signal and Q-phase component signal of the transmission signal respectively to the Q-phase component signal and I-phase component signal multiplied by the complex number sequence; and

the complex despreading portion wherein the complex despreading portion performs the despreading includes:

a multiplier for multiplying the signals by the complex number sequence, and

an adder for performing addition of the signals to the signals multiplied by the complex number sequence, respectively.

3. The spectrum spread communication system according to Claim 1 or 2, wherein the complex number sequence is a pattern in which the I-phase component is constantly set at 1 or -1 and the Q-phase component changes between 1 and -1 alternately.

4. (Amended) The spectrum spread communication system according to Claim 1 ~~or 2~~, further comprising:

a mapping circuit disposed prior to the transmitter for mapping the multiplexed transmission signals to points on the I-Q plane.

5. A spread spectrum communication system including a transmitter and receiver for performing spread spectrum communications based on a direct sequence spreading scheme, the transmitter comprising:

a permuting processor for permuting the I-phase component signal and the Q-phase component signal of the transmission signal, once every two clock units and at the same time inverting the sign of one of the component signals;

a multiplier for multiplying the signals output from the complex spreading portion by a pseudo-random sequence which is generated at a speed exceeding the symbol rate;

a roll-off filter for waveform shaping; and

a carrier modulator for performing carrier modulation of the signals having undergone waveform shaping,

the receiver comprising:

a carrier demodulator for performing carrier demodulation of the received signal;

a multiplier for multiplying the two types of signals output from the carrier demodulator by the pseudo-random sequence generated at the same speed as above;

a permuting processor for permuting the I-phase component signal multiplied by the pseudo-random sequence, once every two clock units and at the same time inverting the sign of the component signal which underwent sign inversion at the transmitter; and

a phase-correcting portion for performing phase-correction so as to extract the I-phase and Q-phase components.

6. The spectrum spread communication system according to Claim 5, wherein the permuting processor includes:

a multiplier for multiplying one of the component signals of the transmission signal by -1; and

a switch which, based on a control signal of 1 and 0 appearing alternately, switches between the combination of the I-phase component signal and Q-phase component signal of the transmission signal and the combination of one component signal multiplied by -1 and the other component signal,

the permuting inverse processor includes:

a multiplier for multiplying the signal which was multiplied by the pseudo-random sequence by -1;

a switch which, based on a control signal of 1 and 0 appearing alternately, switches between the combination of the signals which were multiplied by a pseudo-random sequence and the combination between the signal multiplied by -1 and the other signal multiplied by another pseudo-random sequence.

7. (Amended) The spectrum spread communication system according to Claim 5 ~~or 6~~, further comprising:

a mapping circuit disposed prior to the transmitter for mapping the multiplexed transmission signals to points on the I-Q plane.

8. The spectrum spread communication system according to Claim 7, wherein the mapping circuit maps each of the signals to the I-phase and Q-phase and independently sets the I-phase or Q-phase amplitude and symbol rate, if required.

9. The spectrum spread communication system according to Claim 7, wherein the mapping circuit has the mapping function of mapping, when a multiple number of data channels are needed to be allotted in response to an information transfer request arising regularly or eventually, the data onto the I-Q plane by using a multiple number of orthogonal sequences whereby increase in symbol rate due to mapping is minimized.